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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/698,376

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Yasuomi Ooki

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EXAMINER

DEAN, RAYMOND S

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/698,376	Applicant(s) OOKI ET AL.	
	Examiner RAYMOND S. DEAN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 4, 2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 24 - 37 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 29, 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 29, 30 recite the limitation "**said** third wireless LAN base stations" in lines 3 and 4 respectively. There is insufficient antecedent basis for this limitation in the

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claim. Examiner assumes Applicants meant for said above claims to depend from Claim 28 in order to establish antecedent basis.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 24, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banaei (US 2004/0203751) in view of Omata (US 2002/0007462)

Regarding Claims 24, 31, Banaei teaches a system/method for wireless LAN (Local Area Network) communication, comprising/including: a user terminal for a user (Sections 0042 – 0044, end users will have user terminals); a plurality of wireless LAN base stations shared by a plurality of service providers for providing an Internet-access service, said plurality of service providers including a first service provider to be contracted with said user and a second service provider not to be contracted with said user (Sections 0042 – 0044, there are a plurality of service providers and a plurality of wireless LANs thus there will be a plurality of wireless LAN base stations), said plurality of wireless LAN base station including a first wireless LAN base station managed by said first service provider and a second wireless LAN base station managed by said second service provider (Sections 0042 – 0044);/method comprising: means for

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collecting/collecting data of a communication amount and communication time of said user terminal, when said user terminal is connected to said second wireless LAN base station (Sections 0044 – 0045); and means for enabling/enabling said first service provider to pay a charge on usage of said second wireless LAN base station to said second service provider in accordance with said communication amount and communication time (Sections 0044 – 0045).

Banaei does not teach means for obtaining/obtaining a one-time password and one-time ID valid for a given time, when said user terminal is connected to said second wireless LAN base station; means for connecting/connecting said user terminal to said second wireless LAN base station using said one-time password and one- time ID.

Omata, which also teaches a LAN system with authentication features, teaches a one-time password and one-time ID valid for a given time and means for connecting/connecting said user terminal to a LAN base station using said one-time password and one- time ID (Section 0025 lines 13 – 14, 0031 lines 5 – 8, the one-time ID is also a password).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the ID and password method of Omata in the system of Banaei as an alternative means for achieving the predictable result of authentication in a LAN system.

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7. Claims 25, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banaei (US 2004/0203751) in view of Omata (US 2002/0007462), as applied to Claims 24, 31 above, and further in view of Uhlik et al. (US 7,369,841)

Regarding Claims 25, 32, Banaei in view of Omata teaches all of the claimed limitations recited in Claim 24. Banaei in view of Omata does not teach means for informing said second service provider of a MAC address of said user terminal, when said user terminal is connected to said second wireless LAN base station; and means for authenticating whether or not to permit connection between said user terminal and said second wireless LAN base station based on the MAC address.

Uhlik, which also teaches WLAN system with authentication features, teaches means for informing of a MAC address of a user terminal, when said user terminal is connected to a wireless LAN base station; and means for authenticating whether or not to permit connection between said user terminal and said wireless LAN base station based on the MAC address (Col. 4 lines 37 – 41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the authentication method of Uhlik as an alternative means for achieving the predictable result of authentication in a WLAN system.

8. Claims 26, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banaei (US 2004/0203751) in view of Omata (US 2002/0007462), as applied to Claims 24, 31 above, and further in view of Labun et al. (US 6,842,621).

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Regarding Claims 26, 33, Banaei in view Omata teaches all of the claimed limitations recited in Claims 24, 31. Banaei in view Omata does not teach means for setting a time band for using said second wireless LAN base stations for the each of said plurality of service providers; and means for refusing connection of said user terminal when a time of usage thereof is out of the set time band for using said second wireless LAN base station.

Labun teaches means for setting a time period for using said wireless LAN base station and means for refusing connection of said user terminal when a time of usage thereof is out of the set time period for using said wireless LAN base station (Column 9 lines 25 – 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Banaei in view of Omata with the time band method of Labun for the purpose of preventing a ping-pong handover that could occur if a mobile moves into an edge of a proximity of coverage area of the access point as taught by Labun.

9. Claims 27, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banaei (US 2004/0203751) in view of Omata (US 2002/0007462), as applied to Claims 24, 31 above, and further in view of Kostic et al. (US 2003/0134642)

Regarding Claims 27, 34, Banaei in view of Omata teaches all of the claimed limitations recited in Claims 24, 31. Banaei in view of Omata does not teach means for ranking the each of users of said first service provider in accordance with charge plans

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on usage of said second wireless LAN base station; and means for restricting connection in order from each of said users with a lower rank, in case that an average communication speed per user falls below a predetermined communication speed or in case that a number of connections to said second wireless LAN bases station exceeds a preset number of connections of simultaneously connectable users.

Kostic teaches means for ranking users of service providers in accordance with charge plans on usage of said wireless LAN equipment (Sections: 0005, 0020, typical hotspots comprise user's contracted with different service providers, priority weighting is used thus, for example, a user with high traffic intensity can be ranked lower than a user with low traffic intensity, said users can be associated with different service providers thus when said users are ranked said service providers are therefore ranked); and means for restricting connection in order from each of the users with a lower rank, in case that an average communication speed per user falls below a predetermined communication speed or in case that a number of connections to said wireless LAN equipment exceeds a preset number of connections of simultaneously connectable users (Section 0020).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the WLAN system of Banaei in view of Omata with the load balancing method of Kostic for the purpose of reducing network congestion as taught by Kostic.

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10. Claims 28, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banaei (US 2004/0203751) in view of Omata (US 2002/0007462), as applied to Claims 24, 31 above, and further in view of Stewart et al. (US 6,970,927)

Regarding Claims 28, 35, Banaei in view of Omata teaches all of the claimed limitations recited in Claims 24, 31. Banaei further teaches wherein said plurality of wireless LAN base stations include a third wireless LAN base station (Sections 0042 – 0044), and said system further comprises: means for collecting data of a communication amount and communication time of said user terminal, when said user terminal is connected to said third wireless LAN base station (Sections 0044 – 0045); and means for enabling said first service provider to pay a charge on usage of said third wireless LAN base station in accordance with said communication amount and communication time (Sections 0044 – 0045). Omata further teaches a one-time password and one-time ID valid for a given time and means for connecting/connecting said user terminal to a LAN base station using said one-time password and one-time ID (Section 0025 lines 13 – 14, 0031 lines 5 – 8, the one-time ID is also a password).

Banaei in view of Omata does not teach a third wireless LAN base station which is pre-sited in common space of a shopping center and is managed by a manager of said shopping center wherein the one of the plural service providers pays the charge on usage of said third wireless LAN base station to the manager in accordance with said communication amount and communication time.

Stewart teaches a third party mall manager that manages and maintains WLAN access points. Stewart further teaches wherein a plurality of service providers use said

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WLAN (Cols. 3 lines 51 – 56, 5 lines 32 – 35, it is well established that third party mall managers receive fees for use of mall space, since the WLAN is using mall space the mall manager will receive fees for use of the space, which comprises a fee for the usage of the WLAN from the service providers).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the service provider group of Banaei in view of Omata with the mall service provider of Stewart thus enabling a roaming user to have WLAN access in a shopping mall as taught by Stewart.

11. Claims 29, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banaei (US 2004/0203751) in view of Omata (US 2002/0007462) in view of Stewart et al. (US 6,970,927), as applied to Claims 28, 35 above, and further in view of Labun et al. (US 6,842,621)

Regarding Claims 29, 36, Banaei in view of Omata and in further view of Stewart teaches all of the claimed limitations recited in Claim 28. Banaei in view of Omata and in further view of Stewart does not means for setting a time band for using said third wireless LAN base stations for the each of said plurality of service providers; and means for refusing connection of said user terminal when a time of usage thereof is out of the set time band for using said third wireless LAN base station.

Labun teaches means for setting a time period for using said wireless LAN base station and means for refusing connection of said user terminal when a time of usage

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thereof is out of the set time period for using said wireless LAN base station (Column 9 lines 25 – 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Banaei in view of Omata and in further view of Stewart with the time band method of Labun for the purpose of preventing a ping-pong handover that could occur if a mobile moves into an edge of a proximity of coverage area of the access point as taught by Labun.

12. Claims 30, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banaei (US 2004/0203751) in view of Omata (US 2002/0007462) in view of Stewart et al. (US 6,970,927), as applied to Claims 28, 35 above, and further in view of Kostic et al. (US 2003/0134642)

Regarding Claims 30, 37 Banaei in view of Omata and in further view of Stewart teaches all of the claimed limitations recited in Claims 28, 35. Banaei in view of Omata and in further view of Stewart does not teach teaches means for ranking users of service providers in accordance with charge plans on usage of third wireless LAN base station; and means for restricting connection in order from each of the users with a lower rank, in case that an average communication speed per user falls below a predetermined communication speed or in case that a number of connections to said third wireless LAN base station exceeds a preset number of connections of simultaneously connectable users.

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Kostic teaches means for ranking users of service providers in accordance with charge plans on usage of wireless LAN equipment (Sections: 0005, 0020, typical hotspots comprise user's contracted with different service providers, priority weighting is used thus, for example, a user with high traffic intensity can be ranked lower than a user with low traffic intensity, said users can be associated with different service providers thus when said users are ranked said service providers are therefore ranked); and means for restricting connection in order from each of the users with a lower rank, in case that an average communication speed per user falls below a predetermined communication speed or in case that a number of connections to said wireless LAN equipment exceeds a preset number of connections of simultaneously connectable users (Section 0020).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the WLAN system of Banaei in view of Omata and in further view of Stewart with the load balancing method of Kostic for the purpose of reducing network congestion as taught by Kostic.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAYMOND S. DEAN whose telephone number is (571)272-7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raymond S Dean/
Primary Examiner, Art Unit 2618

Raymond S. Dean
October 3, 2008